

SEQUENCE LISTING

<110> Dong, Zheng Xin

<120> Analogues of GLP-1

<130> 00537-186002

<140> US 09/857,636

<141> 2001-06-07

<150> PCT/EP99/09660

<151> 1999-12-07

<150> US 60/111,255

<151> 1998-12-07

<150> US 09/206,601

<151> 1998-12-07

<160> 415

<170> FastSEQ for Windows Version 4.0

<210> 1

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<212> PRT

<213> Homo sapiens

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Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg		
			20					25					30		

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<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 2

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

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<221> VARIANT
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 (N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesulfonic
 acid)-histidine)

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 3
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

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<220>
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<221> VARIANT
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 <223> Xaa = Na-HEPA-His
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-
 histidine)

<221> VARIANT
 <222> 2,29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 4
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 5
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

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<221> VARIANT
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 6
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

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<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 7

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10						15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

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<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

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<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 8

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10						15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

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<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 9

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

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<221> VARIANT

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<223> Xaa = N-epsilon-dodecanesulfonyl-lysine

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<223> this sequence has an amidated c-terminus

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His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

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<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

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<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 11

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20				25					30			

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<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-(4-tetradecyl-piperazine)asparagine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 12

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20				25					30			

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<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

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<223> Xaa = (1-tetradecylamino)asparagine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 13
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 14
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 31
 <223> Xaa = beta-alanine

<221> VARIANT
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 <223> Xaa = this sequence has a hydroxylated c-terminus

<400> 14
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa
 20 25 30

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<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
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 <223> this sequence has a hydroxylated c-terminus

<400> 15

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

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<221> VARIANT

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 16

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

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<221> VARIANT

<222> 2,29

<223> Xaa = alpha-aminoisobutyric acid

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 17

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

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<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 18

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

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<223> Mutagen

<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 19

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

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<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-alanine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 20
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 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

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<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 21
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 22

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
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 <223> this sequence has a hydroxylated c-terminus

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 25
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-alanine

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-4-(2-aminoethyl)-1-carboxymethyl-piperazine-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 25
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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 26
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<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = Ava (5-aminovaleric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 26
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa
20 25 30

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<223> Xaa = Aib (alpha-aminoisobutyric acid)
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<223> Xaa = Ava (5-aminovaleric acid)
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<223> Xaa = Ado (12-aminododecanoic acid)
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<221> VARIANT
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<223> this sequence has an amidated c-terminus
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<400> 27
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1              5              10              15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Asp Xaa
      20              25              30
Xaa

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<223> Xaa = Aun (11-aminoundecanoic acid)
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<400> 28
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
  1          5          10          15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
      20          25          30

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<221> VARIANT
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<400> 29
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Xaa Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

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<221> VARIANT
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<221> VARIANT
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 <223> Xaa = D-Asp

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 <223> Xaa = Ava (5-aminovaleric acid)

<221> VARIANT
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 <223> Xaa = Aun (11-aminoundecanoic acid)

<400> 30
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30
 Xaa

<210> 31
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<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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<400> 31
 His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 32
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<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 32
 His Ser Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

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<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 33

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Glu
1				5					10					15	
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<222>

<223> this sequence has an amidated c-terminus

<400> 34

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

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<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 35

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Lys	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		

20

25

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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 36
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Leu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 37
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 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Lys Lys Xaa Arg
 20 25 30

<210> 38
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<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 38

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Lys	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Leu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 39

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = D-Arg

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 39

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Xaa		
			20				25					30			

<210> 40

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = D-Arg

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 40
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa
 20 25 30

<210> 41
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 21
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 41
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 42
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT

<222> 2, 21
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29, 31
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 42
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Arg
 20 25 30

<210> 43
 <211> 33
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 21
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29, 31
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 43
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Arg
 20 25 30
 Arg

<210> 44
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 44
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Lys Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Lys Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 45
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 45
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Lys Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 46
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 46

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg	Gly	Arg
			20					25					30		

<210> 47

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 47

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 48

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = D-Arg

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 48

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1		5		10		15							
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg
			20					25					30

<210> 49
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 49															
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg	Arg	
			20					25					30		

<210> 50
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 50															
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Phe	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 51

<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 51
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Phe Leu Val Lys Xaa Arg
 20 25 30

<210> 52
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 25
 <223> Xaa = Nal (naphthylalanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 52
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Xaa Leu Val Lys Xaa Arg
 20 25 30

<210> 53
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 22, 25

<223> Xaa = Nal (naphthylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 53

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Xaa	Ile	Ala	Xaa	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 54

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 25

<223> Xaa = Nal (naphthylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 54

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Xaa	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 55

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 55

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Phe	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 56

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 13, 25

<223> Xaa = Nal (naphthylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 56

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Xaa	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Xaa	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 57

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 6, 25

<223> Xaa = Nal (naphthylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 57

His	Xaa	Glu	Gly	Thr	Xaa	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Xaa	Leu	Val	Lys	Xaa	Arg		

20

25

30

<210> 58
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-decanoyl-lysine

<400> 58
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 59
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 59
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 60
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-dodecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 60
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 61
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = O-decanoyl-serine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 61
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa
 20 25 30

<210> 62
 <211> 33
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 21
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29, 31
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 33
 <223> Xaa = N-epsilon-octanoyl-lysine

<400> 62
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Arg
 20 25 30
 Xaa

<210> 63
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 63
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
 20 25 30

<210> 64
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 64
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
 20 25 30

<210> 65
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 65
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
 20 25 30

<210> 66
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 66
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

<210> 67
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = Tma-His (N,N-tetramethylamidino-histidine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 67
Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

<210> 68
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 31
 <223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 68
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa
 20 25 30

<210> 69
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 32
 <223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 69
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Gly Xaa
 20 25 30

<210> 70
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 31, 32

<223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 70

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 71

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 71

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 72

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 72

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 73
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 73
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 74
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 74
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

20

25

30

<210> 75
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 75
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 76
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-alfa-methyl histidine)

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 76
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 77
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 77
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 78
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 78
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 79
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = D-Ala

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 79

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 80

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 80

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 81

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 81
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Xaa Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 82
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 19, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 82
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Xaa Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 83
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 10, 14
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 83
 His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Xaa Glu Gly

1	5	10	15
Gln	Ala	Ala	Lys
	Glu	Phe	Ile
	Ala	Trp	Leu
	Val	Lys	Xaa
	Arg		
20	25	30	

<210> 84
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 10, 23, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 84
His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
20 25 30

<210> 85
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 14, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 85
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
20 25 30

<210> 86

<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 14
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 86
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 87
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 87
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 88
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 88

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5				10						15	
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25						30		

<210> 89

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 89

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10						15	
Gln	Ala	Ala	Lys	Glu	Phe	Xaa	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20				25						30		

<210> 90

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 90

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Xaa	Ala	Lys	Glu	Phe	Xaa	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 91

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 6

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 91

His	Xaa	Glu	Gly	Thr	Xaa	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 92

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14

<223> Xaa = Cha (alpha-amino acid cyclohexylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 92
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 93
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 27
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 93
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Xaa Lys Xaa Arg
 20 25 30

<210> 94
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 10,14
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 94

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Xaa	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 95
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 16
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Xaa
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 96
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 16, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Xaa
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 97
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 97

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Xaa	Ala	Lys	Glu	Phe	Glu	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 98

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 19, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 98

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Xaa	Xaa	Lys	Glu	Phe	Glu	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 99

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 19, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 10,14, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 99
 His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Glu Xaa Xaa Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 100
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 100
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 101
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 101

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 102

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 102

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 103

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 24

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 103
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Xaa Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 104
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 19
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 104
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Xaa Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 105
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 10, 23, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 105
 His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 106
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 14, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 106
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 107
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14,
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 107
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 108
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 108
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 109
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 14

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 109

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5					10					15	
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 110

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 110

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Xaa	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 111

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 23, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 111
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 112
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 6
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 112
 His Xaa Glu Gly Thr Xaa Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 113
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14

<223> Xaa = Cha (alfa-amino acid- cyclohexylalanine)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 113

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5				10						15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25						30		

<210> 114

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 27

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 114

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10						15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Xaa	Lys	Xaa	Arg		
			20				25						30		

<210> 115

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 16, 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 115

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Xaa
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 116

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 16

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 116

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Xaa
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 117

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 117

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 118

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 118

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 119

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
 <222> 2, 18
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 119
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Xaa Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 120
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 19
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 120
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Xaa Xaa Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 121
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 19
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 10,14, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 121
 His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Glu Xaa Xaa Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 122
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Arg

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 122
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 123

<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Lys

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 123
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 124
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Arg

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 124
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 125
 <211> 30

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Lys

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 125
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 126
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 126
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 127
 <211> 30
 <212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 127

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20						25					30		

<210> 128

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 128

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20						25					30		

<210> 129

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

<400> 129
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 130
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

<400> 130
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly
 20 25 30

<210> 131
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

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<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine
```

```
<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus
```

```

<400> 131
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
      1          5          10          15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa
      20          25          30

```

```
<210> 132
<211> 31
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Mutagen

```
<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)
```

```
<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine
```

```
<221> VARIANT
<222> 31
<223> Xaa = D-Ala
```

```
<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus
```

```

<400> 132
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
      1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa
      20           25           30

```

```
<210> 133
<211> 32
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Mutagen

```
<221> VARIANT
<222> 2,29,31
<223> Xaa = Aib (alpha-aminoisobutyric acid)
```

<221> VARIANT
<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 133

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20				25					30			

<210> 134

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 31

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 134

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20				25					30			

<210> 135

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 135

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
			20					25					30		

<210> 136

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222> 31

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 136

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Gly	Xaa	Xaa	
			20					25					30		

<210> 137

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 137

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Gly	Xaa	Xaa	
			20				25					30			

<210> 138

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 31

<223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 138

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	
			20				25					30			

<210> 139

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 31

<223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 139

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	
			20					25					30		

```
<210> 140
<211> 31
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Mutagen

```
<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)
```

```
<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine
```

```
<221> VARIANT
<222> 31
<223> Xaa = D- Ala
```

```
<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus
```

```

<400> 140
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1              5              10              15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Xaa Xaa
      20              25              30

```

```
<210> 141
<211> 32
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Mutagen

```
<221> VARIANT
<222> 2, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)
```

```
<221> VARIANT
<222> 32
<223> Xaa = N-epsilon-tetradecanoyl-lysine
```

```
<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus
```

<400> 141
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Arg Xaa Xaa
20 25 30

```
<210> 142
<211> 32
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Mutagen

```
<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)
```

```
<221> VARIANT
<222> 31
<223> Xaa = beta-Ala (beta-alanine)
```

```
<221> VARIANT
<222> 32
<223> Xaa = N-epsilon-tetradecanoyl-lysine
```

```
<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus
```

```
<400> 142
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1                5                10                15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Arg Xaa Xaa
      20                25                30
```

```
<210> 143
<211> 30
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Mutagen

```
<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)
```

```
<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-octanoyl-lysine
```

```
<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus
```

```
<400> 143
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
```

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 144
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 144
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 145
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 145
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 146
 <211> 30

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 146
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 147
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 147
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 148
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 148
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 149
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 149
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 150
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 150
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 151
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 151
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 152
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 152

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 153

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 153

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Lys	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 154

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 154

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20					25					30			

<210> 155

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 155

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20					25					30			

<210> 156

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 156

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20					25					30			

<210> 157

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 157

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20					25					30			

<210> 158

<211> 30

<212> PRT

<213> Artificial Sequence

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<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 158

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 159

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 159

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 160

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

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<221> VARIANT

<222> 2

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<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 160

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 161
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 162
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>

<223> this sequence has an amidated c-terminus

<400> 162

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20					25					30			

<210> 163

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 163

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20					25					30			

<210> 164

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 164

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 165

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 165

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 166

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 166

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		

20

25

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<210> 167
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 167
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 168
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 168
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 169
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<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 169

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 170

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

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<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 170

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 171

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 171
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 172
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 172
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 173
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<220>
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<221> VARIANT
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<221> VARIANT

<222> 28
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 173
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 174
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 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 174
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 175
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>

<223> this sequence has an amidated c-terminus

<400> 175

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10						15	
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 176

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 176

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10						15	
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 177

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 177

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10						15	

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 178
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 178
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 179
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<220>
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<221> VARIANT
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 179
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 180
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<212> PRT
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<220>
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<221> VARIANT
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 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 180
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 181
 <211> 30
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<220>
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<221> VARIANT
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<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 181
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 182
 <211> 30
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<220>
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<221> VARIANT
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<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 182
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 183
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 183
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 184
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> CONFLICT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 184
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 185
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 185
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 186
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 186

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
			20				25					30			

<210> 187

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 187

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
			20				25					30			

<210> 188

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 188

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1	5	10	15												
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
	20						25						30		

<210> 189
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 189															
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
		20						25					30		

<210> 190
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 190															
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
		20						25					30		

<210> 191

<211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 191
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 192
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 192
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 193
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 193

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 194

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> CONFLICT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 194

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 195

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 195
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 196
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 196
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 197
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 197

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 198

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 198

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 199

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> Xaa = N-epsilon-octanoyl-lysine

<400> 199

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20						25					30		

<210> 200
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20						25					30		

<210> 201
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20						25					30		

<210> 202
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 202
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 203
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 203
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 204

<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 204
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 205
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 205
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

20

25

30

<210> 206
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 206
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 207
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 207

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 208

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 208

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 209

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 209

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 210

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 210

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 211

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 211
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 212
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 212
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 213
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 213
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 214
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 214
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 215
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 215

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 216

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 216

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 217

<211> 30

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 217
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 218
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 218
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 219
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 219
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 220
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 220
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1		5		10		15							
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Xaa
			20					25					30

<210> 221
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 221															
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 222
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 222

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Xaa		
			20				25						30		

<210> 223

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 223

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Xaa		
			20				25						30		

<210> 224

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 224

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 225

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 225

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 226

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 226
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 227
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 227
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 228
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 228

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 229

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 229

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 230

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 230

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 231

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 231

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 232

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 232
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 233
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 233
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 234
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 234
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 235
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 235
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 236
<211> 30

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 236
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 237
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 237
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Xaa Val Arg Xaa Arg
 20 25 30

<210> 238
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 238
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Xaa Val Arg Xaa Arg
 20 25 30

<210> 239
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 239
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1	5	10	15
Gln	Ala	Ala	Xaa
	Glu	Phe	Ile
	Ala	Trp	Xaa
		Val	Arg
		Xaa	Arg
	20	25	30

<210> 240
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 240
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
20 25 30

<210> 241
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 241

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 242

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 242

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 243

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 243

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 244

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 244

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 245

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 245
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
 20 25 30

<210> 246
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 246
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
 20 25 30

<210> 247
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 247

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20				25						30		

<210> 248

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 248

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20				25						30		

<210> 249

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 249
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
 20 25 30

<210> 250
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 250
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
 20 25 30

<210> 251
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 251
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
 20 25 30

<210> 252
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 252
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
 20 25 30

<210> 253
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 253

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 254

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 254

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 255

<211> 30

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 255
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 256
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 256
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 257
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 257
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 258
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 258
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 259
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 259
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 260
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 260
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 261
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 261

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Xaa	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 262

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 262

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Xaa	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 263

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 263

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1 5 10 15
Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

```
<210> 264
<211> 30
<212> PRT
<213> Artificial Sequence
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<220>
<223> Mutagen

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<221> VARIANT
<222> 2, 18, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)
```

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<221> VARIANT
<222> 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)
```

```
<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-octanoyl-lysine
```

```
<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus
```

```

<400> 264
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1               5               10               15
Glu Xaa Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
      20               25               30

```

```
<210> 265
<211> 30
<212> PRT
<213> Artificial Sequence
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<220>
<223> Mutagen

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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)
```

```
<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-octanoyl-lysine
```

```
<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus
```

<400> 265
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Glu Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 266
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 266
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 267
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 267
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 268
 <211> 30

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 268
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 269
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 269
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 270
 <211> 30
 <212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 270

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 271

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 271

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 272

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 272
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 273
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 273
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 274
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 274
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 275
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 275
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 276
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>

<223> this sequence has an amidated c-terminus

<400> 276

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 277

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 277

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 278

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 278

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Glu Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 279
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 279
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 280
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 280
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 281
 <211> 30

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 281
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 282
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 282
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 283
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 283
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 284
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 284
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 285
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-octanoyl-lysine
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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus
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<400> 285
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1          5          10          15
Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Arg Xaa Xaa
      20          25          30

```

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<210> 286
<211> 30
<212> PRT
<213> Artificial Sequence
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<220>
<223> Mutagen

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<221> VARIANT
<222> 2, 24, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)
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<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine
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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus
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<400> 286
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
  1              5              10              15
Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Arg Xaa Xaa
      20              25              30

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<210> 287
<211> 30
<212> PRT
<213> Artificial Sequence
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<220>
<223> Mutagen

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<221> VARIANT
<222> 2, 24, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)
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<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-hexadecanoyl-lysine
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<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 287

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 288

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 288

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 289

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 289

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20				25					30			

<210> 290

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 290

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20				25					30			

<210> 291

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 291
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
 20 25 30

<210> 292
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 292
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
 20 25 30

<210> 293
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 293
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
 20 25 30

<210> 294
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 294
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Xaa Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
 20 25 30

<210> 295
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 295

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 296

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 296

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 297

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 297

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 298

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 298

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 299

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 299

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 300

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-HEPES-His
(N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesu
lfonic
acid)-histidine

<221> VARIANT

<222> 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 300

Xaa	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 301
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-HEPES-His
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesu
 lfonic
 acid)-histidine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 301
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 302
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-HEPES-His
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesu
 lfonic
 acid)-histidine

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 302

Xaa	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 303

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-HEPA-His
(N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-
histidine

<221> VARIANT

<222> 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 303

Xaa	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 304

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-HEPA-His
(N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-
histidine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 304

Xaa	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 305

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-HEPA-His
(N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-
histidine

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 305

Xaa	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 306

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT

<222> 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 306

Xaa	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
		20						25					30		

<210> 307

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 307

Xaa	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
		20						25					30		

<210> 308

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 308

Xaa	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		

20

25

30

<210> 309
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 309
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 310
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 310
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 311
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 311
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 312
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 312
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 313
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 313
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 314
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 314
Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 315
<211> 30
<212> PRT
<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 315

Xaa	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20					25						30		

<210> 316

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 316

Xaa	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20					25						30		

<210> 317

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-octanesulfonyl- lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 317

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 318

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-dodecanesulfonyl- lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 318

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 319

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanesulfonyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 319
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 320
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanesulfonyl- lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 320
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 321
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-dodecanesulfonyl- lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 321

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 322

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-hexadecanesulfonyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 322

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 323

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanesulfonyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 323

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 324
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanesulfonyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 324
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 325
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 325
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 326
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = 1-(4-dodecyl-piperazine) - asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 326
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 327
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = 1-(4-tetradecyl-piperazine) -asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 327
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 328
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 328

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25						30		

<210> 329

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 329

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 330

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-dodecyl-piperazine) - asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 330

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 331

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 331

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 332

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-hexadecyl-piperazine) - asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 332

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 333

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 333

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 334

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 334

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 335

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-(4-hexadecyl-piperazine) - asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 335

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 336

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-decyl-piperazine) - asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 336

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Gly	Xaa
			20					25					30		

<210> 337
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 337
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly Xaa
 20 25 30

<210> 338
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 338
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly Xaa
 20 25 30

<210> 339
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 339

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Gly	Xaa
			20					25					30		

<210> 340

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 340

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Xaa	Xaa
			20					25					30		

<210> 341

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-dodecyl-piperazine) - asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 341
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa
 20 25 30

<210> 342
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-tetradecyl-piperazine) -asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 342
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa
 20 25 30

<210> 343
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 343

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Xaa	Xaa
			20					25					30		

<210> 344

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 344

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 345

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 345

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20					25					30			

<210> 346

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 346

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20					25					30			

<210> 347

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<400> 347

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		

20

25

30

<210> 348
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 348
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 349
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 349
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 350
 <211> 30
 <212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 350

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20					25						30		

<210> 351

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 351

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20					25						30		

<210> 352

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 352
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 353
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 353
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 354
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30
 <223> Xaa =
 1-(4-tetradecyl-piperazine)-acetyl)asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 354
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 355
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220> .
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 355
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 356
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> CONFLICT

<222>

<223> this sequence has an amidated c-terminus

<400> 356

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
			20					25					30		

<210> 357

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<400> 357

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
			20					25					30		

<210> 358

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 358

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1	5	10	15												
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
	20							25					30		

<210> 359
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 359
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
20 25 30

<210> 360
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 360
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
20 25 30

<210> 361

<211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-dodecyl-piperazine) - asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 361
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 362
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-tetradecyl-piperazine) - asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 362
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 363
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 363

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 364

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 364

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 365

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 365

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 366

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 366

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 367

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 367
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 368
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 368
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 369
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa =
 N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysi
 ne

<221> VARIANT
 <222>

<223> this sequence has an amidated c-terminus

<400> 369

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20					25					30			

<210> 370

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =
N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)ly
sine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 370

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20					25					30			

<210> 371

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =
N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly
sine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 371
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 372
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 372
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 373
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa =
 N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysi
 ne

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 373

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

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<210> 374
<211> 30.
<212> PRT
<213> Artificial Sequence
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<220>
<223> Mutagen

```
<221> VARIANT .
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)
```

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<221> VARIANT
<222> 28
<223> Xaa =
      N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine
```

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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus
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```
<400> 374
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1              5              10              15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
      20              25              30
```

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<210> 375
<211> 30
<212> PRT
<213> Artificial Sequence
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<220>
<223> Mutagen

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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)
```

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<221> VARIANT
<222> 28
<223> Xaa =
      N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine
```

```
<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus
```

<400> 375
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1	5	10	15
Gln	Ala	Ala	Arg
	Glu	Phe	Ile
	Ala	Trp	Leu
		Val	Xaa
		Xaa	Arg
	20	25	30

<210> 376
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 376
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 377
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa =
 N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 377
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa

20

25

30

<210> 378
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa =
 N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly
 sine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 378
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 379
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 379
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 380
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysi
 ne

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 380
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 381
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)ly
 sine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 381
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 382

<211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly
 sine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 382
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 383
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 383
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 384
 <211> 32
 <212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 384

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 385

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 385

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 386

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 386

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 387

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =

N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 387

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 388

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 388

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20						25					30		

<210> 389

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 389

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20						25					30		

<210> 390

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa =
 N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly
 sine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 390
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 391
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 391
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 392
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa =
N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysi
ne

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 392

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20						25					30		

<210> 393

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa =
N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)ly
sine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 393

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20						25					30		

<210> 394

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa =
N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 394

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20					25						30		

<210> 395

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa =
N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 395

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20					25						30		

<210> 396

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 396

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20						25					30		

<210> 397

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 397

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20						25					30		

<210> 398

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30
 <223> Xaa =
 N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 398
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 399
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 399
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 400
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 400

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
		20						25					30		

<210> 401

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 401

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
		20						25					30		

<210> 402

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly

sine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 402

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
				20				25					30		

<210> 403

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 403

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
				20				25					30		

<210> 404

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 404

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
		20						25					30		

<210> 405

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 405

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
		20						25					30		

<210> 406

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 406

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
		20						25					30		

<210> 407

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an hydroxydated c-terminus

<400> 407

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 408

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an hydroxydated c-terminus

<400> 408

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1		5		10		15							
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa
		20					25					30	

<210> 409
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 31
 <223> Xaa = Ava (5-aminovaleric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400>	409														
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 410
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = N-epsilon-dodecanoyl-lysine

<221> VARIANT
 <222>

<400> 410

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	
			20				25					30			

<210> 411

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 411

Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly	Gln
1				5				10					15		
Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa		
			20				25				30				

<210> 412

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary motif

<221> VARIANT

<222> 1

<223> Xaa = L-His, Ura, Paa, Pta, Amp, Tma-His,
Des-amino-His, or deleted

<221> VARIANT

<222> 2

<223> Xaa = Ala, D-Ala, Aib, Acc, N-Me-Ala, N-Me-D-Ala,
or N-Me-Gly

<221> VARIANT

<222> 3

<223> Xaa = Glu, N-Me-Glu, N-Me- Asp, or Asp

<221> VARIANT
 <222> 4
 <223> Xaa = Gly, Acc, beta-Ala, or Aib

<221> VARIANT
 <222> 5
 <223> Xaa = Thr, or Ser

<221> VARIANT
 <222> 6
 <223> Xaa = Phe, Acc, Aic, Aib, 3-Pal, 4-Pal, beta-Nal, Cha, Trp, or X1-Phe

<221> VARIANT
 <222> 7
 <223> Xaa = Thr, or Ser

<221> VARIANT
 <222> 8
 <223> Xaa = Ser, or Aib

<221> VARIANT
 <222> 9
 <223> Xaa = Asp, or Glu

<221> VARIANT
 <222> 10
 <223> Xaa = Val, Acc, Aib, Leu, Ile, Tle, Nle, Abu, Ala, or Cha

<221> VARIANT
 <222> 11
 <223> Xaa = Ser, or Thr

<221> VARIANT
 <222> 12
 <223> Xaa = Ser, or Thr

<221> VARIANT
 <222> 13
 <223> Xaa = Tyr, Cha, Phe, 3-Pal, 4-Pal, Acc, beta-Nal, or X1-Phe

<221> VARIANT
 <222> 14
 <223> Xaa = Leu, Acc, Aib, Nle, Ile, Cha, Tle, Val, Phe, or X1-Phe

<221> VARIANT
 <222> 15
 <223> Xaa = Glu, or Asp

<221> VARIANT
 <222> 16
 <223> Xaa = Gly, Acc, beta-Ala, Glu, or Aib

<221> VARIANT
 <222> 17
 <223> Xaa = Gln, Asp, Asn, or Glu

<221> VARIANT

<222> 18

<223> Xaa = Ala, Aib, Val, Abu, Tle, or Acc

<221> VARIANT

<222> 19

<223> Xaa = Ala, Aib, Val, Abu, Tle, Acc, Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), OR NH-CH((CH₂)_e-X₃)-C(O)

<221> VARIANT

<222> 20

<223> Xaa = Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), OR NH-CH((CH₂)_e-X₃)-C(O)

<221> VARIANT

<222> 21

<223> Xaa = Glu Asp, Leu, Aib, or Lys

<221> VARIANT

<222> 22

<223> Xaa = Phe, Pal, beta-Nal, X1-Phe, Aic, Acc, Aib, Cha, or Trp

<221> VARIANT

<222> 23

<223> Xaa = Ile, Acc, Aib, Leu, Nle, Cha, Tle, Val, Abu, Ala, or Phe

<221> VARIANT

<222> 24

<223> Xaa = Ala, Aib, or Acc

<221> VARIANT

<222> 25

<223> Xaa = Trp, beta-Nal, 3-Pal, 4-Pal, Phe, Acc, Aib, or Cha

<221> VARIANT

<222> 26

<223> Xaa = Leu, Acc, Aib, Nle, Ile, Cha, Tle, Phe, X1-Phe, or Ala

<221> VARIANT

<222> 27

<223> Xaa = Val, Acc, Aib, Leu, Ile, Tle, Nle, Cha, Ala, Phe, Abu, Lys, or X1-Phe

<221> VARIANT

<222> 28

<223> Xaa = Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), or NH-CH((CH₂)_e-X₃)-C(O)

<221> VARIANT

<222> 29

<223> Xaa = Gly, beta-Ala, D-Ala, Gaba, Ava, NH-(CH₂)_m-C(O), Aib, Acc or D-amino acid

<221> VARIANT

<222> 30

<223> Xaa = L-or D-Arg, D-or L-Lys, D-or L-hArg, D-or L-Orn, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), NH-CH((CH₂)_e-X₃)-C(O) or deleted

<221> VARIANT

<222> 31

<223> Xaa = Gly, beta-Ala, Gaba, Ava, Aib, Acc, Ado, Arg, Asp, Aun, Aec, NH-(CH₂)_m-C(O), HN-CH((CH₂)_n-N(R10-R11))-C(O), a D-amino acid, or deleted

<221> VARIANT

<222> 32

<223> Xaa = D-or L-Lys, D-or L-Arg, D-or L-hArg, D-or L-Orn, HN-CH((CH₂)_n-N(R10-R11))-C(O), NH-CH((CH₂)_e-X3)-C(O)Ava, Ado, Aec, or deleted

<221> VARIANT

<222> 33

<223> Xaa = D-or L-Lys, D-or L-Arg, HN-CH((CH₂)_n-N(R10-R11))-C(O), Ava, Ado, or Aec

<400> 412

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
1				5						10					15	
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
				20						25						30
Xaa																

<210> 413

<211> 31

<212> PRT

<213> Homo sapiens

<400> 413

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly	
			20					25					30		

<210> 414

<211> 32

<212> PRT

<213> Homo sapiens

<400> 414

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly	Arg
			20					25					30		

<210> 415

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 13

<223> Xaa = 125I radiolabeled Tyr

<400> 415
His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Xaa Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30